

aws



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[+91 8218500370](tel:+918218500370)

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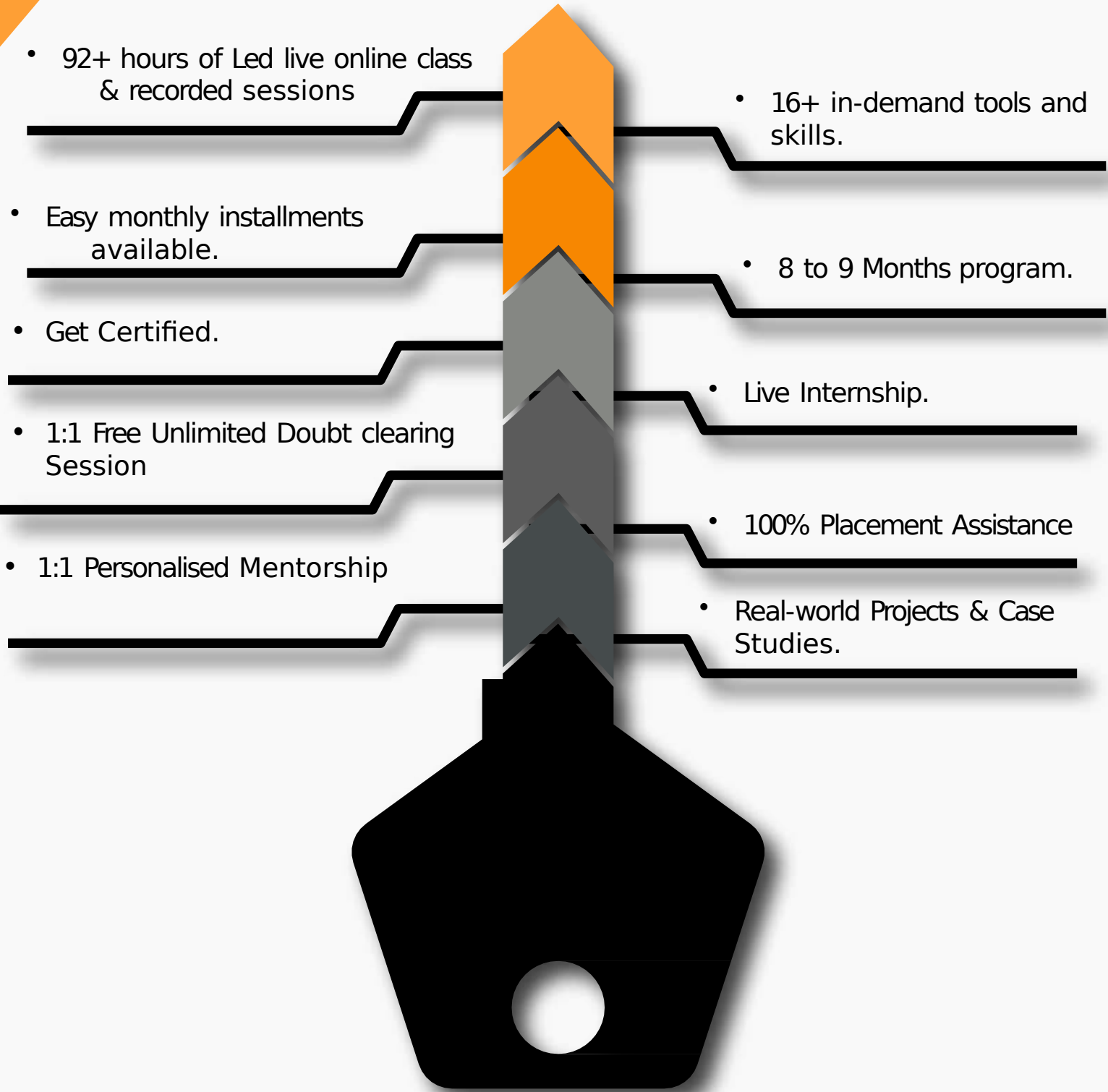
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Key Features



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Participation and Certifications Alignment

This AWS job ready program is aligned to curriculum of Amazon Web Services and we are the registered training provider for this program.



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Learning Path

- Networking Essential: 7 hours
- Red hat/Centos Linux basic administration/shell
- Scripting: 35 hours
- Red hat/Centos Linux advanced administration: 20 hours
- Ubuntu Distribution administration: 7 hours
- AWS solution architect associate: 40 hours
- AWS database migration: 4 hours
- AWS sysops administrator: 40 hours
- Fully automated CI/CD pipeline using Jenkins, Kubernetes, GitHub
- Docker: 25 hours

Program Outcome

At the end of the program, you will be able to get well versed into these sections:

Understand the Linux architecture in complete detail.
You will be prepared to get a job as an experienced Linux administrator

- Ensure that you are fully proficient in identifying AWS terminologies, concepts, benefits and deployment options to meet your business requirements.
- Understand the Linux architecture in complete detail.
- You will be prepared to get a job as an experienced Linux administrator



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- Implement AWS security and testing, and become an expert in AWS components such as S3, Dynamo DB, and CloudFormation.
- Get an overview of AWS DMS, how the AWS Schema Conversion tool works, and types of AWS Database Migration Services.
- Deploy, manage and operate scalable, highly available, and fault-tolerant systems on AWS. Select the appropriate AWS service based on data, compute, database, or security requirements
- Deploy a fully automated CI/CD pipeline using various tools like Jenkins, Kubernetes, Docker, etc.
- Monitor the applications using various monitoring tools like Prometheus and Grafana.
- Build a complete AWS architecture and perform automation on it using Terraform and Ansible.

Who should Enroll in this program:

This program caters to those who are hoping to enter the cloud industry. The following roles and disciplines are ideal for this course:

- Fresh graduates who are intent on taking the plunge into the job market.
- Any professionals who are working in either technical or non-technical job roles and want to shift to cloud domain
- Experienced desktop support, system administrator, system engineer, software engineer who wants to shift to DevOps engineering.



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STEP 1:

Networking Essential

This Network-Essentials Training Course will introduce you to the fundamentals of how networking works. The training will account on all the fundamentals of networks that are important for learning VPC in AWS structure. Not only it is about VPC but it is also mandatory for someone who is working on AWS architecture to be well versed with the knowledge of in and out of the network as that person is responsible for handling overall architecture of AWS.

Key Learning Objectives

By the end of networking essentials training, we will able to:

- Know about the fundamentals of networking and how internet works.
- Know about the implementation of OSI model and TCP/IP model.
- Know about how DNS and DNCP works in real time environment.
- Know about the working of how packet actually travel while crossing any network.
- Know about how to troubleshoot the network and server and if they are not working properly.
- Being a AWS architect it is mandatory to know how infrastructure work and hence it is a first stage to be a successful cloud administrator.properly.



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Key Learning Objectives

- Lesson 1. Introduction to Networking essentials
- Lesson 2. Subnetting class A, class B and class C
- Lesson 3. Detailed OSI model and TCP/IP model
- Lesson 4. Practical implementation of TCP/IP model
- Lesson 5. Routing methodology, firewall and DHCP complete architecture
- Lesson 6. DNS complete architecture and practical implementation
- Lesson 7. Troubleshooting using ping, NSlookup, traceroute
- Lesson 8. How packet travel from one pc to another pc when we type google.com on browser

STEP 2:

RED HAT/CENTOS LINUX BASIC ADMINISTRATION/SHELL SCRIPTING

The training will help you to introduce to the basic fundamentals of how Linux operating system works. This is one of the most important part of any cloud environment as without learning how to work on Linux, we can't actually work, most importantly on cloud environment especially AWS, company is using Linux operating system in their server. The course will help you to know how to manage Red hat or centos Linux operating system in a full-fledged manner. The course will also help you to understand how to automate the task in any operating system as it is one of the most important part of any company.



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Key Learning Objectives

- Be able to completely manage the functioning of basic operation of Red Hat and Centos operating system
- Be able to know how to automate the task so as to lower down the burden on the individual for performing the same task again and again.
- Be able to handle file handling, user management, group management, security and other part of the server.
- Be single handedly responsible for working and managing the Server in the AWS infrastructure as a responsible server administrator.

Course Curriculum

- Lesson1. Linux boot process concept
- Lesson2. Install, configure and monitor kernel modules
- Lesson3. Configure and verify network connection parameters
- Lesson4. Manage storage in a Linux environment
- Lesson5. Conduct software installations, configurations updates and removals
- Lesson7. Understanding devices in Linux
- Lesson6. Linux graphical user interface
- Lesson8. Manage users and groups
- Lesson9. Automate schedule and jobs
- Lesson10. Create modify and redirect files
- Lesson11. Manage services
- Lesson12. File and directory permissions
- Lesson13. Context -based permission
- Lesson14. Access and authentication configuration
- Lesson15. Security best practices and system hardening
- Lesson16. Logging services
- Lesson17. Firewall in Linux
- Lesson18. Backup, restore and compress files



- Lesson19. Analyse system properties
- Lesson20. Troubleshoot user and hardware issues
- Lesson 21. Deploy and execute basic bash script
- Lesson22. Version control using Git and GitHub

STEP 3:

Red HAT/CENTOS Advance Administration

The training will help you to perform all the advanced administration of Linux operating system. It will get student well versed in managing services that are required to become a well-trained server administrator. Our main aim is to get student practically strong in all aspect of automation and Linux Administration, hence this training will fulfil all the criteria. The training is in continuation with the latest syllabus of RHCE, we will cover automation using ansible as a language.

Key Learning Objectives

- With the help of training, students will be able to learn all the advance way of administering Linux services like DNS, samba, NFS and so on.
- The students will get the knowledge of how to automate any environment, and how to deploy the servers within no time.
- The course will act as one of the most important part of dealing with the job market.



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Course Curriculum

- Lesson1: System configuration and management
- Lesson2: Network services
- Lesson3: HTTP/HTTPS services
- Lesson4: DNS
- Lesson5: NFS
- Lesson6: SMB
- Lesson7: SMTP
- Lesson8: SSH
- Lesson10: NTP
- Lesson11: Database services
- Lesson12: Understand core component of Ansible
- Lesson13: Install and configure an ansible
- Lesson14: Configure ansible manage nodes
- Lesson14: Script administration tasks
- Lesson15: Create Ansible play and playbooks
- Lesson16: Use ansible modules and system administration tasks
- Lesson17: Create and use templates to create customized configuration files
- Lesson18: Create and work with roles
- Lesson19: Managing parallelism
- Lesson20: Protect sensitive Data in playbooks with ansible vaults.

STEP 4: UBUNTU Distribution Administration



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The training will help you to learn how to work on ubuntu distribution of Linux. The distribution is important when we need to work on DevOps part like Kubernetes. Functioning is same as just of red hat/centos but what differs is the syntax that is used to perform the task.

Key Learning Objectives

- After the training students will be able to perform all kind of administrative task on ubuntu distribution.
- Most of the things which they have learned to work on Red hat / Centos, those services are applicable here also its just the way of dealing with these services changes hence students will be able to, learn how to implement them after learning basic functionality of Ubuntu.
- Students will become more confident while working on Kubernetes, if they have idea of how to work on ubuntu effectively and efficiently.

Course Curriculum

- Lesson1: Ubuntu desktop
- Lesson2: Ubuntu server
- Lesson3: File management in ubuntu desktop
- Lesson4: Installation, configuration and management
- Lesson5: User and group management
- Lesson6: Introduction to LEMP stack
- Lesson7: Installing a LEMP stack on Linux
- Lesson8: Configuring the Nginx server
- Lesson9: Configuring and customizing log files
- Lesson10: Working with PHP on LEMP stack



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Course Curriculum

- Lesson1. Architecture 101
- Lesson2. Aws Architecture 101
- Lesson3. AWS product fundamentals
- Lesson4. IAM (Identity and Access Management)
- Lesson5. Multi Account Management and Organisation
- Lesson6. Server based compute fundamentals
- Lesson7. Server based compute intermediate
- Lesson8. Server based compute advanced
- Lesson9. Serverless compute
- Lesson10. Container based microservices
- Lesson11. VPC
- Lesson12. Advanced VPC
- Lesson13. Global DNS Fundamental
- Lesson13. Global DNS Fundamental
- Lesson14. Global DNS advanced
- Lesson15. S3 architecture and features
- Lesson16. S3 performance and resilience
- Lesson17. CloudFront
- Lesson18. EFS file systems
- Lesson19. Database sections
- Lesson19. Load Balancing and Autoscaling
- Lesson21. VPN and direct connect
- Lesson22. Identity federation and SSO
- Lesson23. Application integration
- Lesson23. Analytics
- Lesson25. Logging and monitoring
- Lesson26. Operations and deployment



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STEP 5:

AWS Database Migration

This course will demonstrate the key functionality of AWS Database Migration Service (DMS) and will help you understand how to easily and securely move databases into the AWS cloud platform to take advantage of the cost savings and scalability of AWS.

Key Learning Objectives

By the end of the training, you will be able to:

- Understand the working of how AWS schema conversion tool works.
- Get fully versed with how to implement data base service.
- Get practical hands-on data base migration technique.

Course Curriculum

- Lesson1: Overview
- Lesson2: Overview of AWS DMS
- Lesson3: Schema Conversion Tool
- Lesson4: database Migration service
- Lesson5: AWS database migration service review



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STEP 6:

AWS Sysops Associate

This AWS SysOps training is a prerequisite to work best in DevOps field. You will learn how to migrate on-premise applications to AWS, control the flow of data to and from AWS, implement operational cost controls, and enhance your ability to efficiently leverage AWS resources and services, learning monitoring and logging, automating AWS infrastructure.

Key Learning Objectives

By the end of the training, you will be able to:

- Deploy, manage and operate, scalable, highly available, and fault-tolerant systems on AWS.
- Migrate an existing on-premises application to AWS.
- Ensure data integrity and data security on AWS technology.
- Understanding how to perform monitoring and logging in detail.
- How to automate the AWS infrastructure using terraform.
- Select the appropriate AWS service based on compute data or security requirements.
- Identify appropriate use of AWS operational best practices.

Course Curriculum

- Lesson1: Monitoring and reporting
- Lesson2: Deployment and provisioning
- provisioning Lesson3: High availability



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- Lesson4: Security and Compliance
- Lesson5: Deploying to AWS with automation using Ansible and terraform
- terraform Lesson6: Prometheus monitoring tool deep dive

STEP 7:

Building a CI/CD Pipeline using Jenkins, Kubernetes, Docker and GitHub

The training will train you in one of the most important skills of the market. This will open a door to DevOps world. You will be able to fully work in the department of automation and development. The training will make you a real leader in the market of emerging technology. It will help you to work on the various tools that are required by any experienced DevOps engineer to process the work of development, testing and deployment.

Key Learning Objectives

After getting fully trained in this training you will be able to:

- Student will be able to know complete in and out of Devops world .
- Student will be able to orchestrate the container world.
- Student will be able to work on CI/CD pipeline and perform all automation task related to continuous integration and continuous deployment using Jenkins.
- Student can handle all the work related to development, testing and deployment required in the field of Devops engineering.



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Course Curriculum

GitHub

- Lesson1: Installation of GIT
- Lesson2: Basics of Using GIT
- Lesson3: Tags, branching, merging and reverting
- Lesson4: Gits logs and auditing
- Lesson5: Cloning repositories
- Lesson6: Push, pull and tracking remote repositories
- Lesson7: Setting up a Gitlab server

Implementing Full CI/CD Pipeline Using Jenkins, Docker and Kubernetes

- Lesson1: Build Automation using GIT and Gradle
- Lesson2: Continuous Integration
- Lesson3: Continuous Delivery
- Lesson4: Container Optimization
- Lesson5: Orchestration using Kubernetes
- Lesson6: Monitoring
- Lesson7: Self-healing
- Lesson8: Auto scaling
- Lesson9: Canary testing
- Lesson10: Fully automated deployment



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Booting Scenario

Create an environment in which we will perform various scenarios related to the booting of the Linux operating system with errors and exception handling.

Building Automation

Creating build automation with gradle, installing Jenkins, building an app as a free style Jenkins project.

Building a CI/CD pipeline with Jenkins

Building a Jenkin pipeline and implementing automated deployment through a Jenkin pipeline.

Dockrizing Jenkin Pipeline

Here we will dockerize an app and deploy a docker container with Jenkin pipelines.

Deployment using Kubernetes

Here we will learn how to deploy with Kubernetes with Jenkins Pipelines and monitor using Grafana and Prometheus.

Self-Healing, AutoScaling and Canary Testing

Here we will work on how to prepare self-healing app in Kubernetes with autoscaling feature on and then also performing canary testing on it using Jenkins.



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Underlying Infra-Challenges

Resize the existing cluster size in order to meet the infrastructure requirements of an already running application in production and auto scale the application in terms of replica sets and deployments.

Deploy Laravel or any Application in Docker Container

Here students will learn how to containerize the Laravel application using docker image and how to deploy it using docker-compose in production environment.



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Tools and Services Covered



Amazon Corretto



AWS CloudShell



AWS CodeBuild



AWS CodeStar



AWS CodePipeline



AWS Fault Injection Simulator



Tools & SDKs



AWS Cloud Development Kit



Amazon CodeGuru



AWS CodeArtifact



AWS CodeCommit



AWS Command Line Interface



AWS X-Ray



AWS CodeDeploy



AWS Device Farm



AWS Cloud9



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